VIATERM II

VIDEOTEX EMULATION FOR
THE APPLE II, II+, IIe, IIc, IIGS

©BIZAP

VIATERM II

USER OPERATING MANUAL

Program written and documented
by Paul J. Zabrs

BIZAP ®
2/3 Neville Street Lidcombe 2141

Phone (02) 646 1497
International + 61 2 646 1497

Copyright © 1987 by BIZAP

All the material in this manual and the program disk that accompanies this manual is subject to copyright by its author. Either manual or disk may not be copied for any purpose without the written permission of the copyright holder.

Throughout this manual reference is made to many products that are the registered property of other authors and manufacturers. The names used are the property of those authors and manufacturers that hold licence or ownership rights. The manufacturers of these products make no warranties, either express or implied, as to the suitability of their product for use with VIATERM. BIZAP makes no warranty, either express or implied, as to the performance of these products.

VIATEL® is a registered trademark of Telecom Australia.

CONTENTS

	PAGE
INTRODUCTION	5
NECESSARY EQUIPMENT	6
GETTING STARTED	7
VIDEOTEX MODE	11
ADDITIONAL APPLE IIGS COMMANDS	16
APPENDIX	18

INTRODUCTION

Computer communications is a fast growing field. A common way to gain access to a remote computer is via the telephone line. The Apple II can be effectively used in this field, but to do so, the computer must be equipped with a serial interface, modem and appropriate software. The Apple IIc and IIGS do not require any serial interface.

NOTE: If you are not very interested in the technical aspects of communications, skip the rest of this section.

In most cases personal computers access distant mainframes or other micros using the TTY standard. TTY, which stands for TELETYPE, is by far the most common standard for terminals, and one piece of software, e.g. Terminapple will allow the Apple II user to access computers anywhere in the world. Information between two computers moves in both direction and in most cases at the same speed, known as baud rate. The baud rate expresses the number of bits of information transmitted per second.

The Videotex system, under which Viatel and other such services operate, differs in two major ways from the TTY standard:

1. Videotex uses colour graphics and for transmission purposes there are differences between it and standard TTY transmission.

2. Under Videotex information does not move at the same speed in both directions. The terminal receives at 1200 baud and sends at 75. This is why a 1200/75 baud modem is necessary.

Viaterm uses high resolution graphics to display screens. Full colour display is available on the IIGS. This is not possible on the older Apples, however, several character sets and graphics textures corresponding to Videotex colours are provided.

The 1200/75 baud modems can be divided into two broad categories. Modems such as the Apple modem which communicate with the computer at 1200 baud in both directions and then step down the transmission rate to 75 baud. Such modems can usually do other tricks, e.g. auto-dial etc. The other category comprises usually much cheaper modems which require the computer to split the baud rate. If this is needed, Viaterm does just that with the Super Serial Card, the Apple IIc and the Apple IIGS.

Most modems, costly and inexpensive alike, are based on the same modem chip. The main difference between them is in the "extras" which some offer. The sort of signal your computer receives depends more on the quality of your telephone line than the price of the modem.

NECESSARY EQUIPMENT

To use Viaterm you will need a 1200/75 baud (or V23 standard) modem. The modem is then connected by means of a cable to the modem port (marked by a telephone receiver symbol) at the back of the Apple IIc or the IIGS. The Apple II+ and IIe computers need a serial card installed in slot 2. In the II+ slots are numbered 0-7, in the IIe 1-7.

You can also use a serial card in the Apple IIGS instead of its built-in modem port, but there is little reason to do so.

Viaterm supports the Super Serial Card (or SSC for short), Sercom, CCS7710A, Digitek or equivalent. Baud rate splitting in the software for those modems which require it is possible only with the SSC (and the internal IIc and IIGS interfaces). The rare Sercom card can be readily setup for 1200/75 operation. The CCS and Digitek type cards cannot be used for direct 1200/75 operation without a hardware modification. However, they will operate readily with modems not requiring split baud rate, provided the cards are set to 1200 baud. The SSC and the Apple IIc and IIGS modem ports will operate with any type modem and the baud rate will be set correctly by Viaterm.

Apple, Avtek, Cicada, Interlink Netcom, Nice, Sendata, and practically all other 1200/75 baud (V23 standard) modems will work with Viaterm. Even some modem cards, e.g. the Maestro card are supported. Not all Videotex software supports modems which requires split baud rate.

Because there is little standardisation when it comes to cables, and incorrectly wired cables are the greatest source of communications problems, information on various cable and pin configurations is provided in the Appendix.

The printer is optional, and Viaterm accepts a large range of serial and parallel printer interfaces in slot 1. The Apple IIc and IIGS already have serial interfaces built-in.

To be able to access Viatel or other services you must become a subscriber. You will be provided with your own customer identity number, your password and documentation appertaining to the relevant service.

NOTE: Whenever you encounter a word or a letter in this manual enclosed in < > it means that the enclosed word refers to one or two keys on the keyboard to be pressed. For example, <**S**> means that you press just the letter S and not the < > symbols. Press <**OPEN APPLE-C**> means that you press the OPEN APPLE key and, while holding it down, press C. Unless otherwise specified, the <**SOLID APPLE**> (called OPTION on the IIGS) and the CONTROL key can also be used instead of the OPEN APPLE key and the CONTROL key must be used on the Apple II+.

There is a special section covering advanced features of the Apple IIGS, but, unless otherwise specified, all the following documentation equally applies to the IIGS.

GETTING STARTED

Each Viaterm package contains two disks. The 3.5-inch disk is primarily intended for use on the Apple IIGS, the 5.25-inch disk on the rest of the Apple II computers. But, depending on what disk drives you have, either disk can be used on any Apple II computer.

Given reasonable treatment the disks should last indefinitely. It is good practice to keep them write-protected at all times, except when defining a logon. Should a disk for any reason become unusable you can send the original disk directly to Bizap and it will be replaced for a small fee.

NOTE: You can order one back-up disk at any time directly from Bizap (the address is at the front of the manual). This can be done by sending a cheque for $25 payable to Bizap with your registration card, and specifying which disk you want (5.25 or 3.5). If you have already returned the registration card, please quote your Viaterm's serial number.

To try things out, Insert the Viaterm disk in your disk drive and start up. To do so, turn the computer on if it is not on already, or from Applesoft type **<PR#6>** followed by **<RETURN>**. With a IIe, IIc and IIGS the simplest way of starting up is by pressing **<OPEN APPLE>**, **<CONTROL>** and **<RESET>** keys simultaneously and then letting the RESET key go first.

NOTE: Provided your computer has a serial interface in slot 2 (this is always so on a IIc or IIGS) no modem need be connected to try most things described in this manual.

First, you should see the title page and a few seconds later all of Viaterm will be loaded. This process takes a little longer on the Apple IIGS because about twice as much is loaded from the disk. The screen should look like this:

MAIN MENU

1. APPLE or similar modem

2. Standard 1200/75 baud modem

3. Same as above with typeahead

4. DEFINE LOGON

5. EXIT

If the menu does not appear on the screen, refer to Trouble Shooting in the Appendix.

The 3.5-inch disk is automatically ejected at this point. The 5.25-inch disk can also be removed once the Main Menu appears. All the software is loaded into the computer and, normally, Viaterm need not be kept in the disk drive.

Any of the five displayed options can be selected by pressing the appropriate digit, e.g. to exit Viaterm press 5. The first three options achieve the same objective – namely put your computer into Videotex mode which will be explained in detail later. Should you select one of these now, the screen will go blank, except for a blinking cursor. This is normal, to return to the Main Menu press **<OPEN APPLE-C>**.

There are important differences between option 1 and options 2 and 3. The correct selection depends on your serial interface and modem. It is important that you select the right option, otherwise Viaterm may not work.

NOTE: It is useful to know that no matter what you do, short of physical violence, you cannot damage the equipment, including the modem and Viaterm. There is no need to be afraid to try things out.

For the purpose of the discussion below, the serial interface in your computer should be set for 1200 baud. Viaterm always does this automatically for the Super Serial Card, Apple IIc and IIGS, so if you have one of these don't worry about it.

1. APPLE or similar modem

This option applies to any serial interface, including the ones in the IIc and IIGS, provided your modem can communicate with your computer at 1200 baud BOTH ways and then step the rate down to 75 baud when transmitting to a remote system. The Apple modem is a good example. Another mode of operation is to use a Baud Rate Converter between the computer and the standard type of 1200/75 baud modem.

Summary of option 1 usage:

- any serial interface with APPLE or similar modem
- any serial interface with Baud Rate Converter and standard 1200/75 baud mode

2. Standard 1200/75 baud modem

This option can be used only with the Super Serial Card, the Apple IIc and the Apple IIGS.

Under this option you can use standard 1200/75 baud modems directly connected to your computer, without a converter. Viaterm controls the serial interface so that incoming characters are processed at 1200 baud, and outgoing characters (i.e. the ones you type) are sent at 75 baud.

The great advantage of being able to directly connect an inexpensive, but reliable modem is cost.

The disadvantage of switching the baud rate in the software is the brief appearance of unwanted characters if you press a key while there is a screen arriving. Also, if you type fast, and it is quite easy at 75 baud, not all the typed characters will appear on your screen, although all will be sent correctly. This is because what you type is first received by the remote computer and then echoed back to your Apple before you can see it. These disadvantages are taken care of by the typeahead option described below.

3. Same as above with typeahead

Same as the previous option (only SSC, IIc, IIGS), but with a refinement which allows you to type as fast as you like and still see everything on the screen correctly. This is achieved by activating a typeahead buffer which temporarily holds typed characters.

This option is very useful when using Viatel's electronic mail. Option 3 gives you much smoother operation than option 2. On the other hand, under option 2 the response to your command is immediate.

You can change between options 2 and 3 at any time. For example if you had originally selected option 2 and want to change it to option 3, from Videotex mode (described later) type <**OPEN APPLE-C**> and the Main Menu reappears. Now press 3 and all is done. This can be done always, even when on line.

Summary of options 2 and 3 usage:

- Super Serial Card, Apple IIc, Apple IIGS with standard 1200/75 baud modems, but not APPLE or similar modems

NOTE: If you are not sure what type of modem you have, the price can be a guide. The pricier the modem the more likely option 1 is correct. Also, most auto-dial modems fall into this category. The cost of a modem partly reflects the fact that the baud rate is split inside it. However, for most purposes the standard inexpensive modems will perform just as well with Viaterm.

4. DEFINE LOGON

NOTE: Dialling and Auto-Dialling are explained in the next VIDEOTEX MODE section.

Normally, when you contact a remote service you are prompted to type in a series of digits (identity number and password) to log on. This can be done manually every time, or you can put the logon sequence onto the Viaterm disk and the computer will be able to do it for you. Here is an example of defining a logon for Viatel, but the same principle applies to other services.

Try this dry run.

From the Main Menu press 4 for DEFINE LOGON. The Configuration Menu presents options 1, 2 and 3 again on the screen. Choose the one you would normally use by pressing the appropriate digit. Next, you are invited to type in your Identity Code. At this point type in the 10 digit Customer Identity and your Password without any spaces and press <**RETURN**>.

For example, Customer Identity is 1234567890 and Password is 4321 would be put in by typing 12345678904321 <**RETURN**>.

Once done, you are asked if you want to save this configuration on disk. If so, your Viaterm disk must be in the drive with write-protection temporarily removed. (This is, incidentally the only occasion when you should do so.) After pressing <**S**> (for save) the configuration is saved. Write-protect the disk again at this point. The logon sequence can be saved only on the Viaterm disk and trying to put it on another disk may corrupt it.

You need not define the whole 14 digit logon. For security reasons you may choose to define only the Customer Identity and supply the Password manually when Viatel asks for it. Another possibility is to define not only the whole logon, including the Password, but a particular page as well. For example, you may want to go directly to MONEY WATCH. Normally, you would type in *600# to get there. This can be predefined by typing the sequence *600 immediately after the password when defining the logon. Note that while defining a logon the (underline) character must be used to represent the # or RETURN key.

To delete an existing logon press <**CONTROL-D**> instead of typing in the Customer Identity and then save that to disk. To change a logon, just type in a new one – it also deletes the old one.

Once a logon has been defined, the message

Press <RETURN> for configured operation"

appears under the Main Menu every time you start up. Pressing <**RETURN**> from the Main Menu will put the computer into Videotex mode, automatically selecting option 1, 2 or 3 as you had chosen it when defining the logon. When you establish contact with Viatel or another service for which the logon was defined, Viaterm will attempt an automatic logon. If everything goes well, after a few seconds during which a bit of garbage on the screen is normal, you should be fully logged on.

Of course, even with a defined logon you can still select option 1, 2 or 3 instead pressing RETURN and logon manually. Viaterm logs on automatically after <**RETURN**> has been pressed from the Main Menu. But, once you logon automatically and then log off, you must go back to the Main Menu (press <**OPEN APPLE-C**>) before returning to Videotex mode by pressing <**RETURN**> to be able to log on automatically again.

5. EXIT

Pressing 5 will produce a prompt to exit Viaterm. If you have pressed 5 accidentally and do not really want to exit, simply press any key except <**RETURN**> and the Main Menu reappears. Try it.

VIDEOTEX MODE

Pressing 1, 2, 3 (or RETURN if you had defined a logon) puts Viaterm into Videotex mode. This is indicated by a blank screen with a blinking cursor in the top left-hand corner. If this does not happen, it probably means that here is no serial interface in slot 2.

NOTE: Before you log on to Viatel or another Videotex service please read the following paragraph on using the keyboard.

As explained in your Viatel or any other Videotex documentation, the # and * keys are used extensively. For convenience, the RETURN key has the same effect as the # key and, excepting the Apple II+, the DELETE key as the *. If you ever want to send a true RETURN, i.e. CONTROL-M, such as when dialling with an auto-dial modem, press <**OPEN APPLE-A**> or <**CONTROL-A**> instead of <**RETURN**>. The IIGS and the new IIe also have the * and ENTER (or RETURN) keys on the numeric keypad.

DIALLING A SERVICE

Auto-Dial modems

For example, to dial 1234567, from Videotex mode type on the keyboard <**ATDP1234567**> <**OPEN APPLE-A**>. To redial a number, just press <**A/**>.

Viaterm can dial the Viatel number 01955 automatically. This is done from the Main Menu by holding down <**OPEN APPLE**> and then pressing the digit <**1**>, i.e. selecting option 1. With a defined logon, holding <**OPEN APPLE**> and then pressing <**RETURN**>, again from the Main Menu, Viaterm will not only dial up but also log on. In both the above cases hold the OPEN APPLE key down for half a second after you have pressed 1 or RETURN.

Manual dialling

With standard modems, the ANSWER/ORIGINATE switch must be set to ORIGINATE. The baud rate switch must be on 1200/75. Set the PHONE/MODEM switch to PHONE. Dial the required number and when you hear a high pitched tone flick the switch to MODEM. The remote service will then prompt you to log on.

If you have a defined logon (and have entered Videotex mode by pressing RETURN from the Main Menu), then, after dialling the required number, Viaterm will log on automatically.

VIDEOTEX MODE COMMANDS

It is very important that you read the rest of this section as, unlike elsewhere in Viaterm, there are unprompted commands available to you in Videotex mode. None of these are necessary to communicate with Viatel or other Videotex services, but they will give you the edge over many standard Videotex terminals.

The commands are:

<**OPEN APPLE-A**> – sends a Carriage Return

<**OPEN APPLE-C**> – exits Videotex mode

<**OPEN APPLE-D**> – deletes a screen from disk

<OPEN APPLE-E> – converts Viaterm into a simple terminal

<OPEN APPLE-I> – initialises new disk

<OPEN APPLE-L> – loads a screen from disk

<OPEN APPLE-P> – outputs currently displayed screen to printer

<OPEN APPLE-R> – Viatel Reveal Key

<OPEN APPLE-S> – saves current screen on disk

<OPEN APPLE-T> – starts Telesoftware routine

<OPEN APPLE-W> – clears the screen

<OPEN APPLE-Z> – toggles character sets, or colour/monochrome on IIGS

<CONTROL-@> – redisplays last screen (must use CONTROL)

All these commands are functional only in Videotex mode and nearly all can be used at any time. They are invoked by pressing **<OPEN APPLE>** (or **<SOLID APPLE>** or **<CONTROL>**) and, while holding it down, pressing the appropriate letter, e.g.**<P>** for print, **<L>** for load etc.

Explanation in detail:

<OPEN APPLE-A>
Is used to generate the true Carriage Return code, needed when dialling with an auto-dial modem. Remember, The RETURN key is used instead of the # key when in Videotex mode.

<OPEN APPLE-C>
Use this command to exit Videotex mode. **<CONTROL-RESET>** also does that, but more brutally, and its use is not recommended as, depending on the hardware, the modem may go off line.

<OPEN APPLE-E>
After selecting 1, 2 or 3 from the Main Menu, **<OPEN APPLE-E>** converts Viaterm into very simple 1200/75 baud, 40 column terminal for bulletin boards etc. Scrolling is enabled and Videotex interpretation of control sequences is disenabled. It is not recommended that this mode be used to receive a Videotex service. If your modem is connected through the IIGS interface, this command causes the interface to take the baud rate from the CONTROL PANEL. To exit terminal mode, press **<CONTROL->** (not OPEN APPLE in this case).

<OPEN APPLE-D>, <OPEN APPLE-I>, <OPEN APPLE-L>, <OPEN APPLE-S>
These four commands give you the ability to control a disk in the start-up drive from Videotex mode. The commands can be used at any time, even while you are on-line. Each command has its small menu on the four bottom lines of the screen. Pressing **<ESC>** will abort a command invoked by accident. Try it! Press **<OPEN APPLE-L>** or any of the other three commands and then press **<ESC>**. The screen will then return back to the original state without the command having taken effect.

With the exception of disk initialisation, all the commands are very fast in execution so little valuable time is wasted in saving and loading screens when on-line to a remote system. While any of the four commands are operative, Viaterm is blind to any incoming characters. So it is good practice not to leave the system with one of these commands invoked while on-line.

NOTE: Viaterm saves screens as text files, which are reconstituted back into graphics when reloaded. Files are saved under DOS 3.3 on the 5.25-inch disk and under PRODOS on the 3.5-inch disk. Such files contain all the Videotex control characters, and can be loaded into a word processor for editing etc. Only the drive in which Viaterm was started can accept the disk commands.

The best way to explain something is by an example. So, here is one.

First, start up your Viaterm disk (either 5.25 or 3.5 inch) and enter Videotex mode by pressing 1, 2 or 3, as appropriate. Don't log on at this stage.

Remove Viaterm from the disk drive and insert a blank disk instead. Press <**OPEN APPLE-I**> (for Initialise) followed by <**RETURN**>. Next press <*> (must be <**SHIFT-8**>, the DELETE key will not work here) and after less than a minute the disk should be initialised. A 5.25-inch disk initialised in this manner has room for 75 screens, a 3.5-inch disk for 550.

Remove the disk and put Viaterm back in. Press <**OPEN APPLE-L**> (for Load). At the bottom of the screen you are asked for a file name. If you don't know what is on the disk, just press the <**RIGHT ARROW**> key. A file name will be displayed with each pressing of the key. To load a screen just press <**RETURN**>. The Viaterm disk contains several sample screens.

Next, remove Viaterm and put in the previously initialised disk. Press <**OPEN APPLE-S**> (for Save). When prompted type in a name, say TEST, and press <**RETURN**>. The currently displayed screen will be saved under this name. At this point press <**OPEN APPLE-W**> to clear the screen. You can now try <**OPEN APPLE-L**> to load the file, TEST, to see that everything works correctly.

You can save and load files while connected to Viatel or a similar service. For example, you might be looking at a current Viatel screen and want to compare it to one saved previously. To do that, put the disk containing the relevant file in the drive and load it. When you want to return to the last Viatel screen press *00 (this is a Viatel command) and it will reappear.

NOTE: Normally all the loading and saving will be done on a data disk. Once Viaterm is running you can keep a data disk in the drive all the time.

<**OPEN APPLE-D**> allows you to delete individual files from disk.

<OPEN APPLE-P>

Anything appearing on the screen in Videotex mode can be output to a printer, provided the interface card is in slot 1. (The Apple IIc and IIGS have a built-in printer port). However, because there are so many printers and interface cards, no guarantee is given that all combinations will work.

NOTE: The printer must be on for Viaterm to be able to print.

Pressing <**OPEN APPLE-P**> gives 4 choices. If you have a parallel card capable of performing a HIRES screen dump (most EPSON cards, AUTO ICE and many others), press <**1**> followed by the appropriate sequence followed by <**RETURN**>. For instance, the sequence for the AUTO ICE card starts <**CONTROL-I**><**G**> followed by another letter which depends on the printer you have. This will be described in your printer interface manual. Pressing <**1**> in the Printer Dump menu gives you the same access to the printer as typing PR#1 does from APPLESOFT.

Press <**2**> if you have an EPSON (or EPSON compatible) dot matrix printer. This option is primarily intended for use with serial interfaces, Apple IIc and IIGS, but it will also work with a few parallel cards.

For the IMAGEWRITER or SCRIBE printer press <**3**>.

Option <**4**> is designed for impact printers, e.g. NEC, QUME, FUJITSU and many others. The image will be printed using the full stop (.) symbol and the printer horizontal and vertical increments must be set to meaningful values before you start up Viaterm.

The print function can be aborted by pressing <**ESC**>. If this does not work, press <**CONTROL-RESET**>, but remember that using this command may upset your communications link if on-line.

While in PRINTER DUMP menu, pressing <**I**> before selecting option 2, 3 or 4 will cause an inverse picture to be printed.

The <**OPEN APPLE-Z**> command describes two different types of display mode. The two modes correspond to two possible types of printout. If you are using colour display on the IIGS, <**OPEN APPLE-P**> and <**SOLID APPLE-P**> will produce the two different types of printout, but always in monochrome.

NOTE: Because the printing usually takes a while, you may choose to first save the screen(s) using <**OPEN APPLE-S**> and do the printing later, off-line, to save on-line costs.

<OPEN APPLE-R>
Use this command when Viatel asks you to press the REVEAL KEY.

<OPEN APPLE-T>
Viaterm can download Apple II Basic programs and text files. To save such a file you must have an initialised disk in the start-up drive. When Viatel asks you to start the Telesoftware routine, press <**OPEN APPLE-T**>. Then type in the file name and file type as Viaterm prompts you. The rest will be automatic. Please note that virtually all files downloaded from Viatel arrive as text files, so <**T**> should be selected and not <**A**> for Applesoft as file type.

If the file is a program, the saved file should, at a later stage, be EXECed into memory (after typing NEW and RETURN) to obtain the desired program in Applesoft. Files are saved under DOS 3.3 on the 5.25-inch disk and PRODOS on the 3.5-inch disk.

<OPEN APPLE-W>
The screen can be rendered blank with this command.

<OPEN APPLE-Z>
On the Apple II+, IIe and IIc Viaterm emulates colours by using different character sets and graphic textures. If you find it makes the screen difficult to read press **<OPEN APPLE-Z>** and from the next screen on only one character set will be used for display. To return to the previous mode use **<OPEN APPLE-Z>** again – this command toggles the display.

NOTE: Pressing **<OPEN APPLE-Z>** will not immediately produce anything. If you want to see the current screen redisplayed press **<CONTROL-@>** (must be CONTROL here) or **<CONTROL-SHIFT-P>** on the II+.

The above comments also apply to the IIGS, except that the display alternates between colour and monochrome.

<CONTROL-@>
Can also be activated by **<CONTROL-2>**, will redisplay the current screen – see **<OPEN APPLE-Z>**. It will also exit simple terminal mode – see **<OPEN APPLE-E>**.

MAESTRO MODEM CARD

Viaterm supports the Maestro modem card in slot 2 of the II+, IIe and IIGS. The card's switches must be set for 1200/75 baud operation.

To dial a Videotex service, first press 1 (APPLE or similar modem) in the Main Menu. In Videotex mode use **<OPEN APPLE-Q>** or **<CONTROL-Q>**. The message ENTER PHONE NR: will appear at which point you type in the desired number followed by **<RETURN>**. A comma or a space between digits will generate a pause of 2 seconds while dialling. If you make a mistake, press **<ESC>** and start again.

Pressing the </> (slash) key will redial the last phone nr. Pressing </> after starting Viaterm will dial 01955. If you define your logon getting onto Viatel becomes very simple. All you need do is start up, press **<RETURN>**, plug the modem into the telephone socket and press </>. The rest will be automatic.

If you are using this card in the IIGS you must specify "Your Card" for slot 2 using the IIGS's CONTROL PANEL.

ADDITIONAL APPLE IIGS COMMANDS

This section describes commands and features exclusive to the Apple IIGS. But it is ESSENTIAL all the preceding documentation be read first as it also applies to the IIGS.

The IIGS uses the Zilog 8530 serial chip and 1200/75 baud rate splitting has been implemented in the software under options 2 and 3 in the Main Menu. What it means is that you can attach practically any 1200/75 baud modem directly to the IIGS's modem port. Under options 2 and 3 Viaterm controls the IIGS serial interface with the same effect as when handling the Super Serial Card, although the two interfaces are quite different.

The CONTROL PANEL is available only from the Main Menu area. Viaterm always sets the the modem interface to 1200 baud. However, Data/Stop Bits and Parity are determined by the Modem Port settings. Viatel and most other services will run happily on the default values (Data/Stop Bits 8/1, Parity None), but others, e.g. Westpac's Handyline, require Data/Stop Bits to be set to 7/1 and Parity to Even. These values also suit Viatel and just about everything else, so it may be useful to set the Modem Port accordingly. See page 124 of the Apple IIGS Owner's Guide if you are not certain how to do it.

NOTE: A change of settings may not take effect until the computer is restarted.

Viaterm displays screens in colour on the Apple IIGS. However, only the 3.5-inch disk version supports background colours (e.g. colour characters on a different coloured background), and flashing characters. When entering Videotex mode Viaterm is set up for colour display. This makes some screens hard to read on a monochrome monitor. Pressing **<OPEN APPLE-Z>** will change the display to all white characters from the NEXT displayed screen on. A second pressing of **<OPEN APPLE-Z>** reverses the display.

One of the better features of Viaterm is the facility to automatically keep in memory all the screens as they arrive from a remote service. Any of the previously received screens can be looked at, printed or saved to disk whether you are still on-line or not. Advantages are obvious, you can quickly receive what information you want and later study it at your leisure. Or, there is no more a need to backtrack and incur charges just because you want to see something again – it is now quickly available to you and always free of additional cost.

There is room for 24 screens in the 256k IIGS, 168 screens in 512k and 672 screens in the 1.25 Mb system before the oldest is replaced by the newest.

COMMANDS TO REVIEW SCREENS

<OPEN APPLE-SPACEBAR> displays the last received screen.

<OPEN APPLE-LEFT ARROW> steps back one screen.

<OPEN APPLE-RIGHT ARROW> advances one screen.

<SOLID APPLE-LEFT ARROW> steps back 10 screens.

<SOLID APPLE-RIGHT ARROW> advances 10 screens.

<OPEN APPLE-SOLID APPLE-LEFT ARROW> steps back 40 screens.

<OPEN APPLE-SOLID APPLE-RIGHT ARROW> advances 40 screens.

NOTE: As always, hold the **<OPEN APPLE>** and/or **<SOLID APPLE>** (called OPTION on the IIGS) keys down when issuing a command.

The above commands will produce results only after you have received something. It is important to realise the difference between screens which are saved on disk and screens residing in the machine's memory. The commands listed above operate only on screens residing in memory. If you load a screen from disk this screen will be displayed but not in any way interfere with the automatically accumulated screens in memory. Any currently displayed screen (no matter how it was obtained) can be permanently saved on disk or printed out, irrespective of your computer being on or off-line.

When reviewing screens while on-line, it is recommended that **<OPEN APPLE-SPACEBAR>** be pressed before you issue the next command to the remote service, to facilitate your response.

3.5-INCH DISK VERSION ONLY

NOTE: The following paragraph applies to systems with 512k or more memory.

Once you have logged on and received a screen you will notice the date and time in half intensity white on the bottom 25th line of the screen. Each screen is date-stamped when received and this information is also saved on disk every time a screen is saved. When a screen is output to a printer the date and time are printed underneath. On the extreme right of the 25th line, also in half intensity, appears the chronological number of the currently displayed screen. This information is provided for ease of reference.

Received screens will stay in the IIGS's memory until the machine is turned off or another application clobbers the space in the Memory Expansion Card. Since not all applications do, you may find previously received screens still accessibe after restarting Viaterm.

The 3.5-inch disk version of Viaterm also allows quick successive loading and reviewing of screens from disk. First press **<OPEN APPLE-L>**, i.e. the same command as for loading a single screen. Next, press **<OPEN APPLE-SPACEBAR>** which will load the first screen. Without letting the the **<OPEN APPLE>** key go, each pressing of the **<SPACEBAR>** will cause another screen to be displayed. Of course, after first pressing **<OPEN APPLE-L>** you can use the **<RIGHT ARROW>** key to quickly scan different names on the disk and then press **<OPEN APPLE-SPACEBAR>** to start the display from the next screen on.

APPENDIX

TROUBLE SHOOTING

If the disk refuses to start up, there are several possible causes. The speed of your drive may need adjusting, or unusual hardware in one of the slots in your computer may be interfering, or the VIATERM disk may be corrupt.

If the Main Menu appears only after you unplug the modem, the fault is probably in cabling. Try disconnecting pin 6 on the modem side, or all the pins, except 2,3 and 7.

If the disk starts and everything else looks normal, but your system refuses to communicate make sure the modem is on, set to ORIGINATE and the PHONE/ MODEM switch is set to MODEM once the remote service answers. Also, read the note on cabling below. Remember, when in VIDEOTEX mode and not actually logged on, nothing you type on the keyboard will appear on the screen because your typing must be echoed by the remote computer.

If you get nothing but garbage on the screen, it could mean that your modem is not set for 1200/75 baud operation, or the serial card (SSC, the IIc and the IIGS excepted) is not set to 1200 baud. Also make sure your serial interface in slot 2 and not somewhere else.

If you can receive but the remote service does not acknowledge anything you type, it could be a cabling problem (see below), or the wrong option was selected from the Main Menu. It should be realised that option 1. (APPLE or similar modem) will allow you to receive with practically any modem/serial card combination, but the correct option must be chosen for your equipment, so that your computer can send as well as receive.

If you are trying to save a screen on a new disk and get an error message, it probably means the disk is not initialised. See the CONTROL-I command in the Videotex Mode section of this manual.

CABLING INFORMATION

If you are making up a cable connecting your modem to the computer or if you suspect that the cable you have is incorrectly wired, here is some information.

Modems usually have a DB-25 connector to be connected to a DB-25 connector of your APPLE II+ and IIe, a 5 pin DIN socket of the IIc, or 8 pin socket of the IIGS. Many modems require only 3 of the 25 pins to be connected. They are pins 2, 3 and 7. These pins are numbered on the DB-25 connector. On the APPLE IIc the five pins from left to right (looking at the back of the serial port) are equivalent to DB-25 pins 6, 3, 7, 2, 20.

Pin 7 should always be connected to pin 7. Normally, with the SSC, pin 2 to 2 and pin 3 to 3. With the CCS7710 and similar cards pins 2 & 3 should be crossed and pins 4, 6 & 20 should be tied together on the card side.

The IIGS port is pictured on p.161 of the Apple IIGS Owner's Guide). To make a modem cable, use pins as shown below.

IIGS		DB-25
pin 3 Transmit–	to	pin 2
pin 4 Ground	to	pin 7
pin 5 Receive–	to	pin 3
~~pin 8~~	~~to~~	~~pin 4~~

NOTE: For most modems pin 8 (Receive+) should be shorted to pin 4 (Ground).

If things don't work make sure the modem is plugged into its power source, the cable connecting the computer and modem is plugged into both and the modem switches are correctly set. If you are using the Super Serial Card, the jumper block should be pointing to MODEM. (Consult your SSC manual about that.)

Some modems require more than three pins to be connected to work, but this is beyond the scope of this note.